

Claim 20 was rejected under 35 U.S.C. § 112(b), second paragraph, as being indefinite for failing to provide antecedent basis for "article" recited in line 1. Claim 20 has been amended to provide proper antecedent basis for all elements of claim 20.

The claims were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lashyro (WO 97/26188) in view of Boivin (FR 2286708) and Kontz (US 4472217). The Examiner's position may be stated thus: Lashyro discloses a packaging machine and method for packaging cylindrical objects in two lines (12, 13), folding carton blanks (23) open, and loading the objects into the cartons. The blanks are formed with pushers and a rotary die (35). Lashyro does not disclose the use of paired complementary dies. Boivin discloses a method of forming packages from blanks (2) in which the blank is passed between complementary dies (18, 19) with protrusions that push open parts of the blank in order to form a package. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the complementary dies of Boivin in the invention of Lashyro in order to provide a more continuous operation. The combination of Lashyro and Boivin does not disclose orienting the articles by means of sensing a protrusion on the article. Kontz discloses a method and apparatus for packaging in which the outer part of an article contains a protrusion (15) which is sensed by a positioning assembly, and used to orient the article. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of orienting taught by Kontz in the combination of Lashyro and Boivin in order to provide a consistent and reliable method of orienting the articles so that they all face the same direction in the package.

This rejection is respectfully traversed. Lashyro does not disclose the use of paired complementary dies. Boivin does not disclose forming a carton using a pair of complementary dies. Page 3 lines 9-21 of Boivin disclose two pairs of wheels 18, 19 with bosses 20, 21. The bosses 20 are responsible for pushing back the flaps 8a and 8b of the carton to lift the flaps upward in relation to the panel. The bosses 21 are responsible for pushing back the tongues 7a and 7b of the carton to lower the tongues in relation to the panel. The pushing and lifting functions of the bosses is very different from the cutting and forming operations of the dies of the present invention. The bosses operate on a pre-cut blank and merely separate the blank along cut lines.

The combination of Lashyro and Boivin does not disclose orienting the articles by means of sensing a protrusion on the article. Kontz discloses a plurality of wire fingers 55 that contact a seam 15 of a cup to stop rotation of the cup and align the seam to permit repeated removal of a label by the contact of the seam with the contacting member. The present invention uses a single elongate member adapted to abut a portion of the article and apply a tangential force to cause the article to rotate. Rotation is stopped by an abutment means formed on an upper edge of the channel holding the article so that the abutment means engages the protrusion of the article.

Claim 1 and 8 now require complementary die members that act on the carton. One of the complementary die members has a protruding portion extending from a working face thereof and the other complementary die member has a recessed portion adapted to receive the protruding portion. When the blank is placed on the receiving member, the protruding portion forces part of the blank into the receiving portion. The prior art of record does not have cooperating complementary die members. Boivin

discloses bosses that work independently; that is, the bosses do not work in pairs to shape the blank. Claims 1 and 8 are believed to be patentable. Claims 2, 4-6 and 19 depend on claim 1 and are also believed to be patentable. In addition, claim 5 requires at least two channels in substantially parallel relationship to one another that diverge into a plurality of sub-groups with each sub-group spaced to align an article held in each sub-group with one of the article receiving cells. Lashyro does not have diverging channel.

Claim 10 now requires at least two channels in substantially parallel relationship to one another that diverge into a plurality of sub-groups with each sub-group spaced to align an article held in each sub-group with one of the article receiving cells. The sub-groupings are each substantially parallel to one another to provide in line parallel access to the cells. Lashyro does not have diverging channel. Claim 10 is believed to be patentable.

Claim 12 now requires support means comprising a channel including a support surface to retain part of the article within the channel with the support surface substantially corresponding to the exterior surface of the retained part of the article. The prior art of record does not disclose a channel with a support surface corresponding to the exterior surface of the retained part of the article. Claim 12 is believed to be patentable. Claims 13, and 16-18 depend on claim 12 and are also believed to be patentable. In addition, claim 16 requires a single elongated orienting member adapted to abut a portion of the article.

Claim 20 requires rotating the article within the support means until the protruding portion of the article abuts a portion of the support means. The prior art does not rotate the

article within the support means. Claims 20 is believed to be patentable.

In view of the foregoing, the claims in the application are believed to be allowable over the prior art and the application is believed to be in condition for immediate allowance.

Respectfully submitted,



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Atty Docket No. D-7683  
Serial No.: 09/600,4345  
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